

SIEMENS

PATENT
Attorney Docket No. 2003P14050WOUS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Inventor: W. Stamm) Group Art Unit: 1794
Serial No.: 10/575,979)
Filed: April 17, 2006) Examiner: Austin, Aaron
) Conf. No. 8721

Title: **PROTECTIVE LAYER FOR PROTECTING A COMPONENT
AGAINST CORROSION AND OXIDATION AT HIGH
TEMPERATURES, AND COMPONENT**

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Declaration of Dr. Axel Kaiser Under 37 C.F.R. §1.132

1. I, Dr. Axel Kaiser, hereby declare and state:
2. I am a resident and citizen of Germany, and I am currently employed at Siemens AG, which is the assignee of the above-identified patent application.
3. I am a registered European patent attorney and in-house patent counsel at Siemens AG. My office is located in Germany and my responsibilities pertain to the energy service (S) and energy fossil (F) divisions for the Energy Sector of Siemens AG. I am responsible for evaluation of intellectual property protection related to materials and material process development.
4. My responsibilities also include analyzing and monitoring remuneration of inventions made by inventors working for Siemens AG. The remuneration is based on the German law relating to invention of employees. Accordingly, I must, on at least a yearly basis,

review financial information that includes income to Siemens AG as a result of the use of inventions that have been patented or the subject of patent applications.

5. In addition to the above responsibilities, I closely monitor patent applications filed throughout the world including the United States for inventions relating to materials and material processes within the Energy F and S Divisions of Siemens AG. One invention that I am familiar with is the invention that is disclosed and claimed in the patents cited as prior art in the above-referenced case, U.S. Patent 5,268,238 and 5,273,712, both of which shall be referred to as the "Czech Patents" and have been assigned to the common owner Siemens AG. The remuneration of these employees, Czech and Schmitz, even though they are not employed anymore by Siemens AG, is performed by me. Furthermore, both Czech Patents are currently in-force.

6. I am also familiar with the prosecution of the above-referenced application and I have reviewed the final Office Action mailed April 29, 2010. I have also discussed the pending application's cited references with the named inventor, Dr. Werner Stamm.

7. The composition of a protective layer or coating disclosed in the Czech Patents has been used by Siemens AG in the past as a protective coating for turbine machine components including turbine blades and vanes. However, the claimed coating composition of the subject application has been used since 2006, to largely replace the protective layer disclosed in the Czech Patents.

8. As a result of the superior corrosion and oxidative resistant and mechanical characteristics of the claimed composition of the protective layer, the invention of the subject application has been used to replace and supplant that of the Czech Patents since 2006.

9. For Siemens AG turbine machines sold from 2008 to the present, the Czech Patents composition is not used on any blades or vanes in turbine stages of a turbine machine. The claimed coating is used instead because of its superior performance.

10. Indeed, in those new units sold from 2008 through the present, only 50% of such units include the compositions of the Czech Patents and these compositions are not used on turbine blades or vanes, but are used only on metallic heat sheet elements such as transition ducts between a turbine combustion chamber and a first turbine stage of the turbine machine due to differences in mechanical properties. Furthermore, the composition of the protective layer claimed in the subject application has proven to be far more effective than that of the Czech

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Patents, especially on turbine blades and vanes, which may be subject to a more extreme and harsh environment as compared to, for example, heat sheet elements.

11. For the fiscal year of 2006/2007 the remuneration was based on Siemens' having received more than three times the orders from customers for new blades and vanes having the protective coating of the subject application associated with newly manufactured gas turbine engines as compared to the composition claimed in the Czech Patents. In the fiscal year 2008/2009 the remuneration was based on Siemens' having received twice as many orders from customers for new blades or vanes associated with newly manufactured gas turbine engines that utilize the composition claimed in the subject application as compared to that disclosed in the Czech Patents.

12. Since 2006, Siemens has also used the coating composition that is claimed in the subject application to service blades and vanes that previously contained or were coated with the composition of the Czech Patents. More specifically, the claimed composition of the subject application is essentially replacing the composition disclosed and claimed in the Czech Patents. By way of example, in fiscal year 2008/2009 the remuneration was based on Siemens' having received approximately forty times more orders from customers for the composition claimed in the subject application to service blades and vanes as compared to that disclosed and claimed in the Czech Patents.

13. Siemens' strategy in using the composition of the subject application is a result of the superior corrosion and oxidative resistance demonstrated by such composition as compared to that in the Czech Patents. It is not a function of pricing or marketing, but what I consider the novel feature of the invention that includes the concentrations of rhenium and cobalt which produce the surprising results disclosed in the subject application.

14. All statements made herein of my own knowledge are true, and all statements made of information and beliefs are believed true. I acknowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Dr. Axel Kaiser Date: 09. 07. 2010
Dr. Axel Kaiser